NCI Workshop on Lineage Plasticity and Androgen Receptor (AR)-Independent Prostate Cancer

Meeting Agenda
December 6 - 7, 2018
NIH Main Campus, Building 31C, 6th Floor, 9000 Rockville Pike, Bethesda MD 20892

Thursday, December 6, 2018

8:00am  NCI Welcome

8:05   Focused overview and critical questions  Himisha Beltran

Lineage Plasticity: The Scope of the Problem
Moderators: Peter Nelson and Charles Sawyers

8:15   Lineage Plasticity in Lung Cancer  Charles Rudin
Lineage Plasticity Supports Therapeutic Resistance in Pancreatic Ductal Adenocarcinoma  Rosalie Sears
Lineage Plasticity in Melanoma  Richard White
Breast Cancer Stem Cell Plasticity and Treatment Resistance  Max Wicha
Lineage Plasticity in Prostate Cancer  Charles Sawyers
Discussion

10:10 - 10:20  BREAK

Cellular and Molecular Biology of AR-Independent Prostate Cancer
Moderators: Timothy Thompson and Jeffery Hildesheim

Origin of Prostate Neuroendocrine Cells  Michael Shen
Driving Prostate Epithelial Cells to Variant Prostate Cancer Differentiation States  John Lee
Prostate Cancer Dedifferentiation and Redifferentiation  David Goodrich
Preclinical Models of Lineage Plasticity  Kathleen Kelly
New Metabolic Vulnerabilities in Neuroendocrine Prostate Cancer  Maria Diaz-Meco
Hormone Therapy Induces Reprogramming to Drive Aggressive Prostate Cancer  Amina Zoubeidi
Stromal Cell Plasticity and Emergent Biology in the Tumor Microenvironment  David Rowley
12:50 - 1:20

LUNCH

1:20

Clinical and Molecular Pathologic Characteristics of Small Cell/Neuroendocrine Prostate Cancer from the West Coast Dream Team  
Eric Small

Molecular Pathology  
Mark Rubin

Targets in Clinical Development  
Himisha Beltran

Immune Landscape and Opportunities for Immuno-Oncology  
James Gulley

Developing Drugs in the Context of Lineage Plasticity and AR Independence  
Howard Scher

2:50 - 3:00

BREAK

BREAKOUT GROUPS

3:00 - 5:00

Four Working Groups will convene to deliberate on ways to further elucidate the basic understanding of the phenomenon of lineage plasticity and AR-independent prostate cancer and to discuss ways to translate emerging knowledge in the field towards patient care.

Before the meeting: Working Groups had conference calls where they developed key questions and possible proposals to the larger group.

During the meeting: Working Groups will prioritize top questions, review the data to date, address requirements to answer the questions, present early aims to address the questions.

Potential deliverable will be the identification of major gaps of knowledge in the field and the generation of novel ideas on how to address the scientific and clinical challenges.

Cancer Biology Working Group 1 (Basic Basic, WG 1)  
Leaders: Timothy Thompson, Jennifer Isaacs, Jeffery Hildesheim

Cancer Biology Working Group 2 (Basic Preclinical, WG 2)  
Leaders: Peter Nelson, Kathleen Kelly, Himisha Beltran

Preclinical Models Working Group (WG 3)  
Leaders: Mark Rubin, Massimo Loda

Clinical Working Group (WG 4)  
Leaders: Howard Scher, William Dahut, Evan Yu

Pathology Working Group (WG 5) - Meets only on Day 2  
Leaders: Massimo Loda, Tamara Lotan

5:00 - 5:30

Working Group Recap
Working Groups 1-5 meet separately to discuss key issues and finalize slides.

**Plenary Session:**
**Working Group Outcomes**

Each Working Group will present the outcome of their deliberation on solving key questions addressing lineage plasticity and AR-independent prostate cancer. They will discuss their consensus recommendations for the path forward, highlighting data in support of possible research concepts and early aims to advance the field.

- **10:00** Cancer Biology Working Group 1 (Basic Basic, WG 1)
- **10:15** Cancer Biology Working Group 2 (Basic Preclinical, WG 2)
- **10:30** Preclinical Models Working Group (WG 3)
- **10:45** Pathology Working Group (WG 5)
- **11:00** Clinical Working Group (WG 4)

- **11:15** Meeting report discussion, recommendations, and closing remarks

- **12:00** Adjourn
## Working Group Membership

### Cancer Biology Working Group 1 (Basic Basic, WG 1)
**Leaders:** Timothy Thompson, Jennifer Isaacs, Jeffery Hildesheim

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### Cancer Biology Working Group 2 (Basic Preclinical, WG 2)
**Leaders:** Peter Nelson, Kathleen Kelly, Himisha Beltran

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### Preclinical Models Working Group (WG 3)
**Leaders:** Mark Rubin, Massimo Loda

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Clinical Working Group (WG 4)
Leaders: Howard Scher, William Dahut, Evan Yu

Members
Emmanuel Antonarakis    Wolf Lindwasser
Ana Aparicio            Christopher Logothetis
Lawrence Baizer         Bhupinder Mann
Alan Bryce              Jeff Michalski
William Catalona       Charles Ryan
Peter Choyke            Howard Scher
William Dahut           Elad Sharon
Samuel Denmeade         Eric Small
Adam Dicker             Walter Stadler
James Gulley            Mary Ellen Taplin
Stephanie Harmon        Abdul Tawab-Amiri
Deborah Jaffe           Baris Turkbey
Fatima Karzai           Peter Ujhazy
Gary Kelloff            Richard Vetter
William Kelly           Pamela West
Steven M. Larson         Evan Yu
Daniel Lin

Pathology Working Group (WG 5)
Leaders: Massimo Loda, Tamara Lotan

Members
Arul Chinnaiyan
Andrew Hruszkewycz
Jiaoti Huang
Gary Kelloff
Massimo Loda
Tamara Lotan